

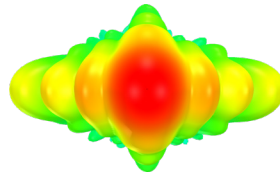


Standard Gain Horn Antennas

217 - 330 GHz, 20 dBi



Radiation pattern



QR code



Hangzhou Multipath Electronics Co., Ltd., Zhejiang, China

Company Profile

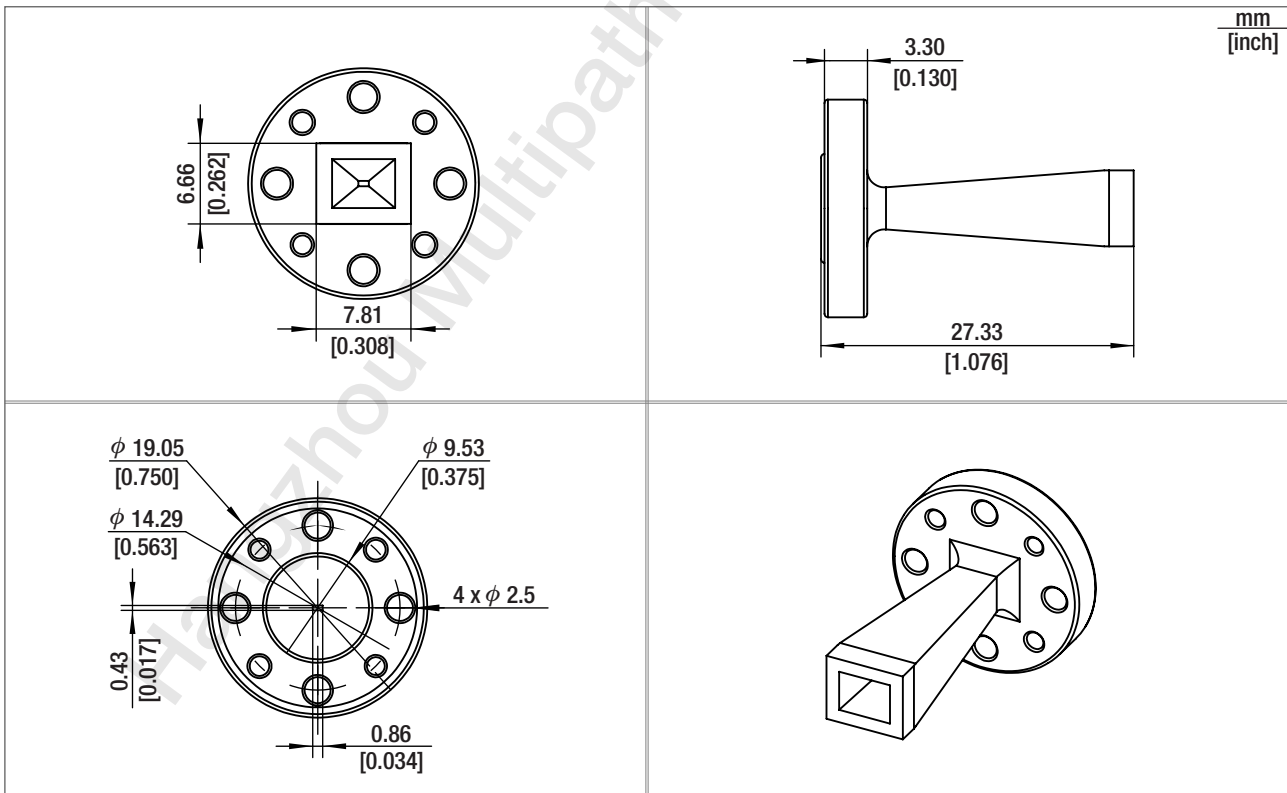
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types of waveguide arrays, patch arrays, dipole arrays, and ultra-wideband angle scanning arrays, and the frequency range covers low frequency to millimeter waves. The founding team of the company has been deeply involved in the field of electromagnetic array structures for many years and has rich experience in array antenna design. The team first applied the principle of bionics to electromagnetic wave control, and the original wideband angle scanning, low loss, and high precision technology is at the leading level internationally, and related technologies have been applied in many large projects. The founding members currently have more than ten core invention patents in this field, and have published many SCI journal papers.

Hangzhou Multipath Electronics will be dedicated to the research of cutting-edge electromagnetic field technology, to be a leader in antenna arrays, to tap the potential of electromagnetic fields, and to contribute to the development of science and technology.

⚙️ Product specifications

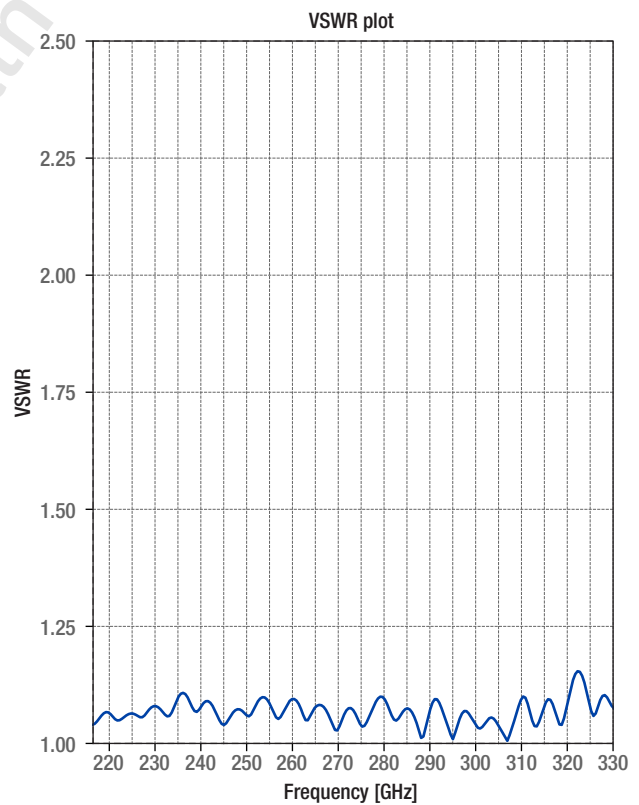
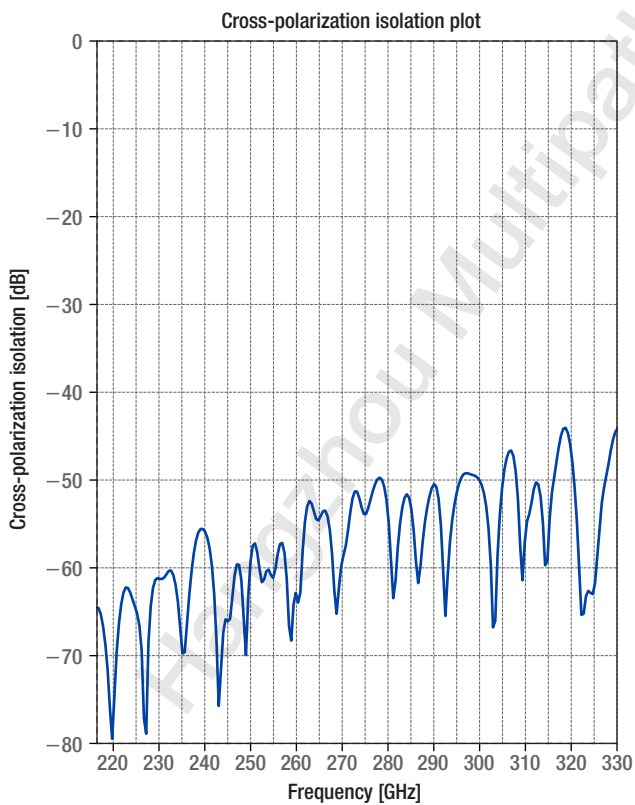
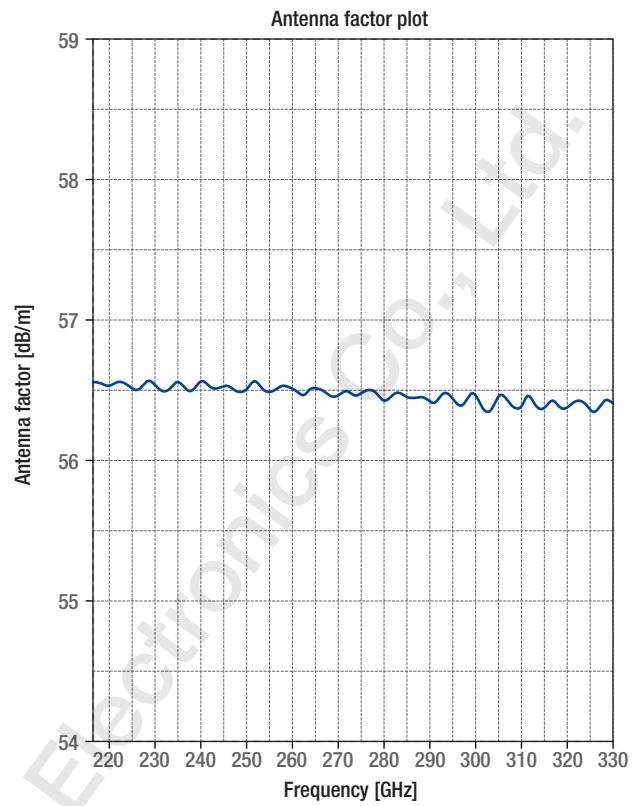
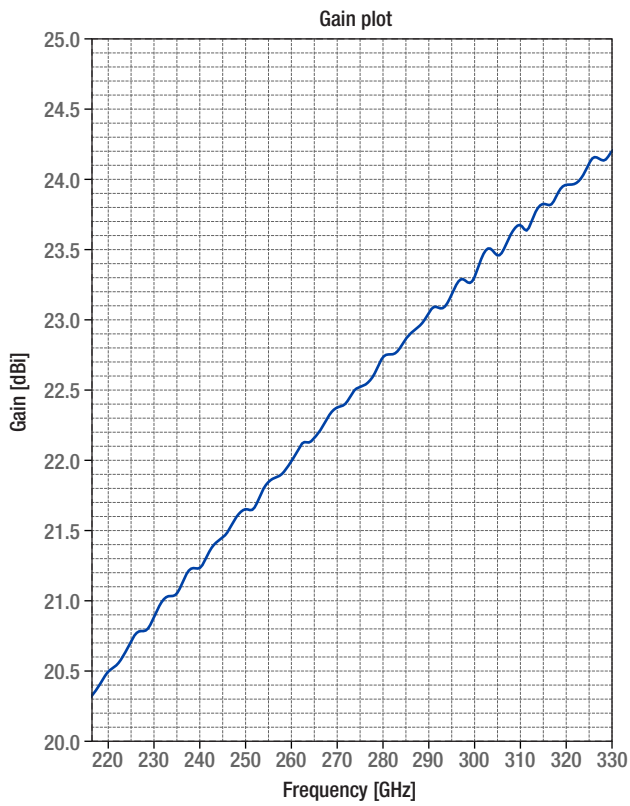
Part number	HA-WR3-20	Polarization	Single linear
Antenna type	Pyramidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	217 – 330	3dB beamwidth [deg]	E-plane: 14 Typ. H-plane: 14 Typ.
Waveguide band	WR3	Cross-polarization isolation [dB]	55 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 27.33; 0.75 x 0.75 x 1.08	VSWR	1.10 Typ.
Weight (approx.) [kg; lb]	0.01; 0.022	RF connector	APF3
Material	Cu (Gold plated)		

• Dimensional drawing: horn, HA-WR3-15



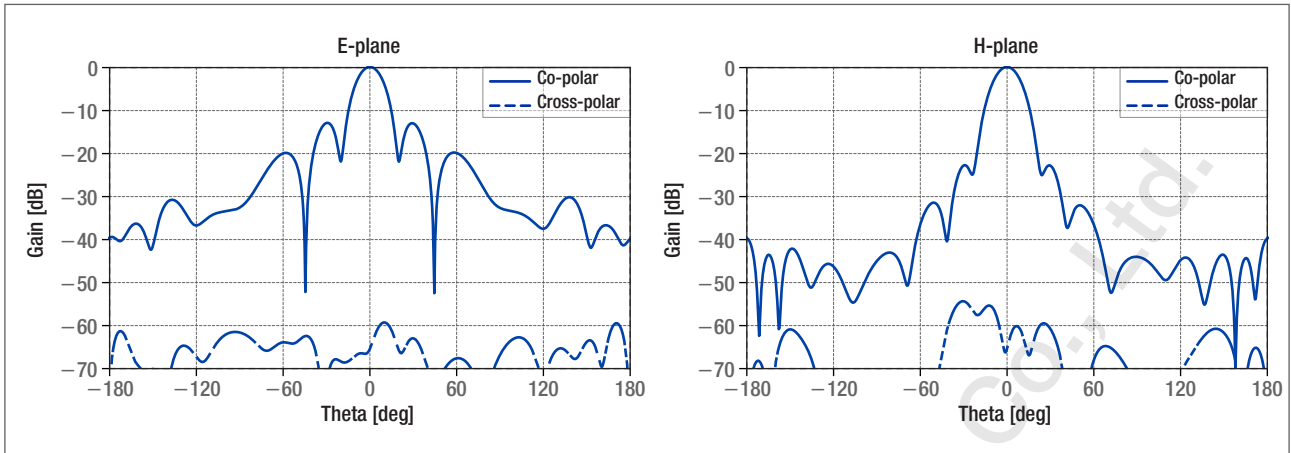
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

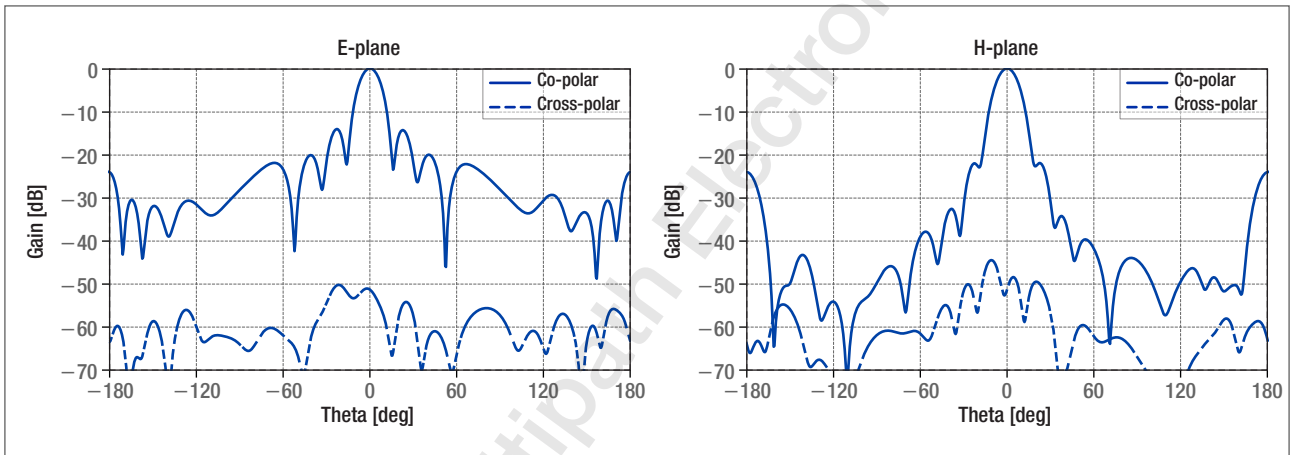


• Radiation patterns

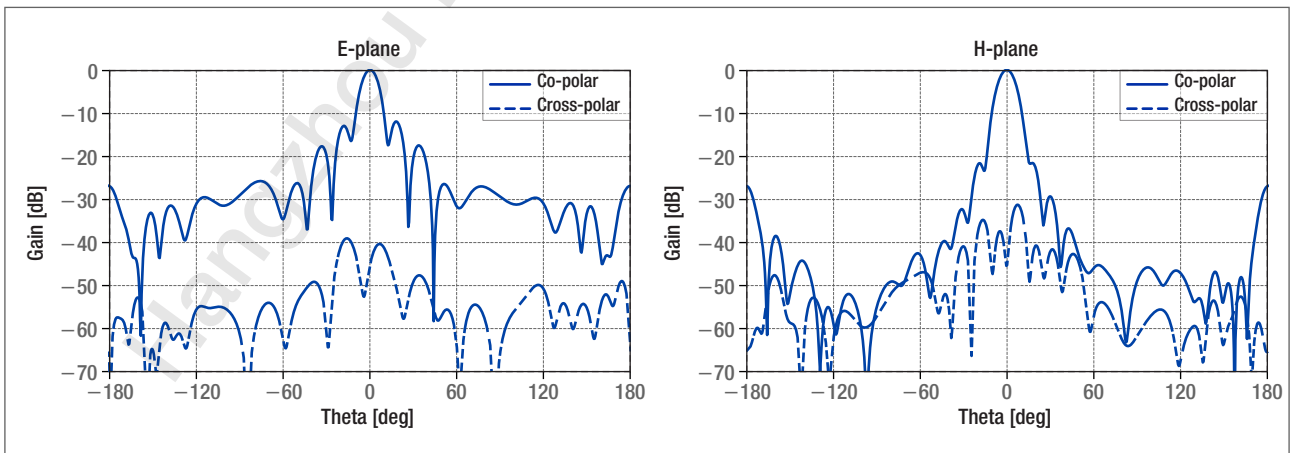
Patterns @ 217 GHz



Patterns @ 273 GHz



Patterns @ 330 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
220	20.52	56.52	-74.12	1.05
225	20.74	56.49	-65.10	1.05
230	20.91	56.52	-61.12	1.07
235	21.07	56.54	-69.61	1.09
240	21.25	56.55	-55.75	1.07
245	21.46	56.51	-65.95	1.03
250	21.66	56.49	-59.18	1.05
255	21.85	56.47	-61.01	1.08
260	21.99	56.50	-62.72	1.08
265	22.16	56.50	-54.45	1.07
270	22.37	56.44	-59.73	1.02
275	22.52	56.46	-53.71	1.03
280	22.72	56.42	-52.12	1.09
285	22.84	56.44	-51.86	1.06
290	23.02	56.41	-50.74	1.04
295	23.14	56.44	-52.62	1.01
300	23.27	56.46	-49.52	1.04
305	23.47	56.41	-53.86	1.04
310	23.66	56.35	-61.28	1.07
315	23.81	56.35	-59.57	1.05
320	23.94	56.35	-44.43	1.04
325	24.05	56.38	-62.71	1.10
330	24.15	56.41	-45.15	1.08

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
217	18.02°	17.40°
273	14.51°	13.82°
330	11.97°	11.29°



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